UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,768	06/20/2005	Hee Sook Shin	HI-0185	6478

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/539,768	SHIN ET AL.
	Examiner	Art Unit	
	Sulaiman Nooristany	2146	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>08/01/2005 & 06/20/2005</u>.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Detailed Action

This Office Action is response to the application (10/539,768) filed on 20, June 2005.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a), which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Huang et**

al. U.S Patent No. US 7,120,702 in view of **Smith et al. U.S Patent No. US 6,970,602.**

Regarding claim 1, Huang teaches wherein a web content converting system for

converting a large display screen web document into a small display screen web

document, the system comprising:

   a preprocessor that standardizes a non-standard web document having an

erroneous tag to output a standardized web document in a data format suitable for

analysis **(transcoder transforms the data into a standardized form so that the**

adapter can then modifying the standardized data into a compatible form for

display by the client device -- Abstract, lines 10-13);

   a client profile analyzer that extracts and manages client information, including

client performance information **(For each type of client device, or user preference, a**

corresponding adapter (acts as an analyzer) is used to interpret (analyze) the user request and properly transcode the relevant web content, Col. 3, line-67, Col. 4, lines 1-2);

a structure analyzer **(analyzing the content – Col. 5, lines 28-29)** that receives the web document standardized in the preprocessor to set the web document to a content unit piece **(transcoder uses rule to extract data from the web page and to transform the web page into a standardized form. Each rule may be applied to a plurality of web pages on a given web site, Col. 4, lines 36-38)** according to a document analysis algorithm **(a machine component that renders the program code elements in a form that instructs a digital processing apparatus (that is, a computer) to perform a sequence of function, Col. 4, lines 24-27)**; and

a HyperText Markup Language (HTML) generator that rearranges and reconstructing the reconstructs generated content object elements according to a document pattern to generate small display screen web document **(PatML is a pattern/match replacement tool for XML documents, which allows a user to specify how an XML document can be transformed for browsing on other programs. A PatML rule specifies an XML pattern to match and how to transform the pattern. Each PatML rule matches a specific pattern in an HTML page and transforms this pattern into a new XML fragment (Col. 5, lines 54-61).**

With respect to claims 1 and 3, Huang shows all the features of the instant claimed invention except for the specific detail of "*an image converter that extracts information on an image encoding/decoding procedure and an image size of the web*

document;

a component block extractor that groups the set content unit piece with similar

groups within a range not exceeding a maximal width by using an attribution value of

the content unit piece and the client performance information;

a component block categorizer each of the component blocks generated by the

component block extractor into index and body content portions in accordance with a

content characteristic;

an index generator that extracts information on an image or text index from the

component block categorized into the index portion, and generates a script file and an

additional tag collection the extracted information;

an auditory markup generator for converting that converts a text-centered body

content block into an auditory markup language to perform an auditory supporting

function.

Smith teaches that is well known to have an image converter that extracts

information on an image encoding/decoding **(compression)** procedure and an image

size of the web document **(There are many ways in which a transcoder can adapt**

content to the client device, such as by data compression, summarization and

media conversion (Col. 2, lines 5-7);

a component block extractor that groups the set content unit piece with similar

groups **(Fig. 8, -- separate out different items in a Web document such as text**

bodies, Java applets, images, animations and embedded video. After multimedia

object separation, the individual multimedia objects can be analyzed and

transcoded independently, can be analyzed and grouped for transcoding, or can

be further broken down into individual modalities -- Col. 5, lines 9-15) within a

range not exceeding a maximal width (images using the measure of the mean

saturation per pixel -- Col. 8, lines 49-50; Fig. 9) by using an attribution value of the

content unit piece (The system can also extracts a number of image attributes,

such as image width -- Col. 11, lines 28-29), and the client performance information

(Fig. 9; Table 6 – summary of client device capabilities);

a component block categorizer each of the component blocks generated by the

component block extractor into index and body content portions in accordance with a

content characteristic (The system can use an image subject classification system

that maps images into subjects categories (s) using key-terms (d) — Col. 11, lines

51-53);

an index generator that extracts information on an image or text index from the

component block categorized into the index portion (The system can use an image

subject classification system that maps images into subjects categories (s) using

key-terms (d) — Col. 11, lines 51-53), and generates a script file and an additional tag

collection the extracted information (The summary information can be made

available to the transcoding engine to allow the substitution of the image with

text – Col. 11, lines 54-56);

an auditory markup generator for converting that converts a text-centered body

content block into an auditory markup language to perform an auditory_supporting

function (converting text to speech; converting audio to text through speech

recognition; converting text from one language to another; summarizing text

passages; and so forth -- Co. 4, lines 42-45). Smith further teaches wherein

"document analysis algorithm" – **Abstract.**

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Huang's invention by transcoding the web content to

small display, as taught by Smith. Smith provides the advantage of coupling content

analysis with transcoding the content could be better adapted to constraints in delivery,

display, processing and storage (col. 2, lines 45-47). Further, transcoding can be found

in many areas of content adaptation however it is commonly used in the area of mobile

phones content adaptation. In the world of mobile content, transcoding is a must due to

the diversity of mobile devices. This diversity requires an intermediate state of content

adaptation in order to make sure that the source content will adequately present on the

target device it is sent to. Transcoding can also refer to the encoding of files to a lower

bit-rate without changing video formats, a process that is also known as transrating.

when using a camera phone to take a digital picture you are actually creating a high

resolution JPEG image, usually at least 640x480 with 24 bits of color. However when

sending the image to another phone this high resolution image might be transcoded to a

lower resolution image with less amount of color in order to better fit the target device's

screen size and color limitation. This size and color reduction not only improves the user

experience on the target device but is sometimes the only way for content to be sent

between different devices, as taught by Smith.

Regarding claim 2, Huang together with Smith taught the method according to claim 1

as described above. Smith further teaches wherein the web

content converting system is installed at any one of three layers of a web server, a client

and a proxy **(The transcoding mechanism can be deployed in a number of ways in**

a networked system, including deployment at a server or at the client.

Alternatively, the transcoding system can be deployed at a proxy, which retrieves

the content from the content server (Col. 1, lines 50-54).

Regarding claim 4, Huang together with Smith taught the method according to claim 3

as described above. Smith further teaches wherein in the standardizing step, a tag such

as <TABLE>, <TR>, <TD>, <IMG>, etc. is mainly analyzed **(The system can also use**

a dictionary of terms extracted from the text related to the images. The terms are

extracted from the "alt" tag text, the image URL address strings, and the text

nearby the images in the Web documents -- Col. 11, lines 23-27); and a specific

<TD> tag is defined as a component to be used as a minimal unit for the Content unit

analysis. **(The system can make use of terms such as D=["ad", "texture", "bullet",**

"map", "logo", "icon" (Col. 11, lines 27-28), The features can be extracted only as

needed for the tests in order to minimize processing -- Col. 8, lines 37-39).

Regarding claim 5, Huang together with Smith taught the method according to claim 3

as described above. Smith further teaches wherein in the step, a component tree is in to

check initial width information for all component nodes, and the comprises checking

whether or not a sibling node of a current component node exists **(Fig. 8, tree decision,**

The separation process may involve analysis of the multimedia material to

determine file formats, MIME types, and other information that influences the

separation. This processing can separate out different items in a Web document

such as text bodies, Java applets, images, animations and embedded video --

Col. 5, lines 6-11), and if a sibling node of a current component node exists, sibling

nodes are bundled and grouped within range not exceeding the maximal width

(MAX_WIDTH) **(Table 6 -- summary of client device capabilities).**

Regarding claim 6, Huang together with Smith taught the method according to claim 3

as described above. Smith further teaches wherein the categorizing step comprises the

receiving a component block tree for each of the component blocks comprising a

content pattern of the component block **(separation process may involve analysis of**

the multimedia material to determine file formats, MIME types, and other

information that influences the separation -- Col. 5, lines 6-10);

determining an index type if a resultant value of the pattern comparison exceeds

a certain critical value; setting a type of the index-determined block to each of an image

index (INDEX_I) or a text index (INDEX_T) depending on whether a data type of the

content is an image or a text **(In the analysis process, the document can be**

separated into objects such as photos, graphics and text. Each of the objects can

be analyzed separately as illustrated in FIG. 2-3); and

categorizing a block not being an index the portion as a body portions, and

categorizing an auditory, body (BODY_V) performing to perform the converting into the

auditory, document and general body (BODY_G) processed as other general content

blocks **(converting text to speech; converting audio to text through speech**

recognition; converting text from one language to another; summarizing text

passages; and so forth -- Co. 4, lines 42-45).

Regarding claims 7 & 8, Huang together with Smith taught the method according to

claim 1 as described above. Smith further teaches wherein converting a text- centered

body content block into an auditory markup language to perform an auditory supporting

function comprises converting a text-centered body content block into a voice markup

language to perform a voice supporting function **(converting text to speech;**

converting audio to text through speech recognition; converting text from one

language to another; summarizing text passages; and so forth -- Co. 4, lines 42-

45).

Regarding claim 9, Huang together with Smith teach wherein in a portable terminal for

receiving contents from a network web server, a portable terminal comprising:

Smith further teaches wherein a network interface configured to access the web

server via the network; and a web contents transcoding system configured to process

contents provided by the web server for a first display performance to a second reduced

display performance according to identified unit pieces of the transmitted contents **(Fig.**

10-12).

Regarding claim 10, Huang together with Smith teach wherein in portable terminal for

receiving contents from a network web server, a user terminal comprising:

Smith further teaches wherein a web content transcoding system processor

configured to process the contents transmitted by the web server for a first display

performance to a second reduced display terminal according to identified unit pieces of

the transmitted performance of a portable contents; and

a communication port configured to transmit the processed contents to the portable

terminal **(Fig. 10-12).**

Claim 11 has the similar limitation as those claims 1 & 3; therefore, it's rejected under

the same rationale as in claim 1 & 3.

Claim 12 has the similar limitation as those claims 1 & 3; therefore, it's rejected under

the same rationale as in claim 1 & 3.

Claim 13 has the similar limitation as those claims 1- 6; therefore, it's rejected under the

same rationale as in claim 1- 6.

Claim 14 has the similar limitation as those claims 1- 6; therefore, it's rejected under the

same rationale as in claim 1- 6.

Regarding claim 15, Huang together with Smith taught the method of claim 12, as described above. Smith further teaches wherein the second rearranged web document is displayed without a scroll bar for a width direction **(Fig. 7)**.

Claim 16 has the similar limitation as those claims 1- 6; therefore, it's rejected under the same rationale as in claim 1- 6.

Claim 17 has the similar limitation as those claims 1- 6; therefore, it's rejected under the same rationale as in claim 1- 6.

Response to Arguments

Applicant's arguments filed on 11/30/2007 have been fully considered but they are not

persuasive. With respect to applicant's arguments that "Neither passage discloses or

suggests a structure analyzer that receives the web document standardized in the

preprocessor to set the web document to a content unit piece according to a document

analysis algorithm" Huang discloses a method of a transcoder receives the retrieved

web page and applies a transcoding rule to extract data from the web page. The

transcoding rule used is one of a set of predefined rules relating to the web page. The

transcoder also transforms the data into a standardized form so that the adapter can

then modifying the standardized data into a compatible form for display by the client

device. In addition, Huang points out to a machine component that renders the program

code elements in a form that instructs a digital processing apparatus (that is, a

computer) to perform a sequence of function which represent of algorithm analysis.

Smith further teaches wherein "document analysis algorithm" Based on the analysis,

different transcoding algorithms can be applied to different content.

In response to applicant's arguments that "an index generator that extracts

information on an image or text index from the component block categorized into the

index portion, and generates a script file and an additional". Smith discloses a system

can use an image subject classification system that maps images into subjects

categories (s) using key-terms where as an index generator performs similar

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functionality in terms of extracting information on an image or text.

In response to applicants' arguments that "an image converter that extracts information on an image encoding/decoding procedure and an image size of the web document". Smith further discloses a system and method of data compression which is the same as encode/decode for converting web documents while the process of transforming information from one format into another.

In response to applicant's arguments that "a component block extractor that groups the set content unit piece with similar groups within a range not exceeding a maximal width by using an attribution value of the content unit piece and the client performance information." smith discloses in Fig 8. a system where it separates out different items in a Web document such as text bodies, Java applets, images, animations and embedded video. After multimedia object separation, the individual multimedia objects can be analyzed and transcoded independently, can be analyzed and grouped for transcoding, or can be further broken down into individual modalities.

Huang and Smith both teaches method, system and apparatus for selecting at least one transcoding method for manipulating multimedia data for delivery on the basis of analysis of the content of the multimedia data. transcoding operations can be performed on multimedia data to adapt it to constraints in delivery and display, processing and storage of client devices. The selection of specific transcoding operations can be made by first analyzing the features, purposes and relevances of the individual multimedia objects within the multimedia documents, then by selecting the transcoding alternatives according to the results of the analysis. Based on the analysis, different transcoding algorithms can be applied to different content, less than all of the

content can be transcoded, groups of multimedia objects can be transcoded, etc.

Therefore the proposed combination of Huang and Smith, can establish a prima facie

case of obviousness.

Conclusion

Applicant's arguments filed on 11/30/2007 have been fully considered but they

are not persuasive. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sulaiman Nooristany whose telephone number is (571)

270-1929. The examiner can normally be reached on M-F from 9 to 5. If attempts to

reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu,

can be reached on (571) 272-6798. The fax phone number for the organization where

this application or proceeding is assigned is 571-273-8300. Information regarding the

status of an application may be obtained from the Patent Application Information

Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the

PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to

the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-

9197 (toll-free).

Sulaiman Nooristany   01/04/2008

JEFFREY PWU
SUPERVISORY PATENT EXAMINER